

REFERENCES

- BORCHSENIUS, N. S. (1948): Contribution to the revision of the genus *Phenacoccus* Ckll. (Insecta, Homoptera, Coccoidea) (In Russian). *C. R. Acad. Sci. USSR, Moscow (N.S.)*. 61: 953-956.
- DE LOTTO, G. (1969): The Mealy bugs of South Africa (Homoptera: Pseudococcidae). II, *Entomology Mem. Dep. Agric. Serv. Repub. S. Africa* No. 20: 1-30.
- HAYAT, M., ALAM, S. M. & AGARWAL, M. M. (1975): Taxonomic survey of Encyrtid Parasites (Hymenoptera: Encyrtidae) in India. *Alig. Musl. Univ. Publ. (Zool. Ser.) Ind. Ins. Typ.* 9: 1-112.
- SHAFEE, S. A. (1972): Species of the genera *Tachardiaephagus* Ashmead, 1904 and *Mashhoodia* Shafee, 1972 (Hymenoptera: Encyrtidae) from India. *Indian J. Ent.* 34: 325-329.
- ALAM, S. M. AND AGARWAL, M. M. (1975): Taxonomic survey of Encyrtid Parasites (Hymenoptera: Encyrtidae) in India. *Alig. Musl. Univ. Publ. (Zool. Ser.) Ind. Ins. Typ.* 10: 1-125.

A NEW SPECIES AND A NEW RECORD OF THE INTERESTING GENUS *SMICROMORPHA* GIRAULT (HYMENOPTERA: CHALCIDIDAE) FROM ORIENTAL REGION¹

T. C. NARENDRAN²
(With six text-figures)

The genus *Smicromorpha* was erected by Girault (1913) who included it under a new tribe Smicromorphini of the family Chalcididae. Girault described this genus based on the type *Smicromorpha doddi* Girault from Australia. He described two more species, *S. cadaverosa* (1914) and *S. minera* (1926) from Australia. According to Dr. Boucek *S. minera* is a misspelling for *S. minerva* (Personal communication). Since then there was no report on this genus from any part of the world. The present paper records this genus from India for the first time.

Smicromorpha keralensis sp. nov. (Figs. 1-6)

Male: Length 4.5 mm. Head golden yellow with the eyes and ocelli black. Thorax golden

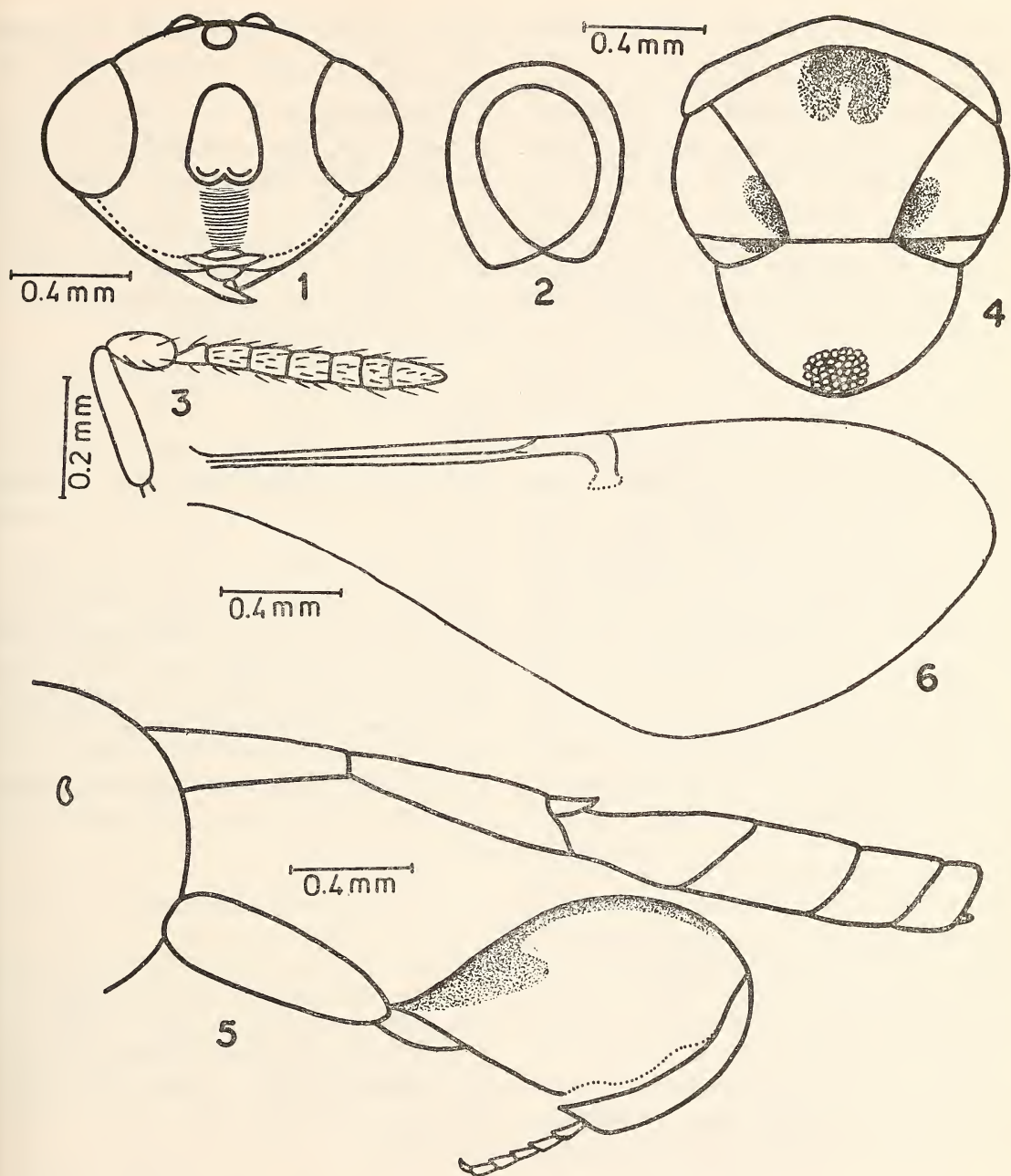
yellow with pale brown patches as in Figure 4. Wings hyaline. Fore- and mid-legs golden yellow with the pretarsus pale brown. Hind coxa brownish-black; hind femur dull golden yellow with black coloration on the proximal and dorsal margin as in figure 6. Hind tarsi golden yellow with the pretarsus brown. Abdomen blackish-brown. Pubescence golden yellow.

Head (Fig. 1) a little wider than the maximum width of thorax, sparsely and shallowly punctate; interspaces between the punctures rugulose. Scrobe deep with transverse striations; apex of scrobe far away from the front ocellus, area below scrobe coarse with transverse striations. Pre- and post-orbital carinae absent (Figs. 1 & 2). Eyes large and devoid of cilia. Inter-antennal projection very small and hardly visible. The maximum diameter of median ocellus equal to that of lateral; the distance between median and lateral ocelli one-third the interocellar distance; interocular

¹ Accepted November 1978.

² Department of Zoology, University of Calicut, Kerala, India.

NEW DESCRIPTIONS



Figs. 1-6. *Smicromorpha keralensis* sp. nov.

1. Head in front view; 2. head in profile; 3. antenna; 4. thorax in dorsal view (less propodeum); 5. hind leg and abdomen in lateral view (with part of propodeum); 6. fore wing.

space three and one-third times interocellar distance; width of ocellar area three-fourths interocular space; interocellar distance a little over the maximum diameter of lateral ocellus. Right mandible sickle shaped; left one short and acute. Antenna (Fig. 3) nine jointed without a ring segment, inserted a trifle over the level of lower margin of eyes; scape never reaches the front ocellus and never exceeds the upper rim of scrobe; size and shape of antennal segments as in figure 3.

Thorax (Fig. 4) moderately convex with small, shallow, reticulate and close punctures on notum; natualices complete; scutellum without a shallow median groove; metanotum with weak longitudinal costae; propodeum somewhat strongly declined posteriorly, with a shallow median groove which widens at its distal end; punctures on the propodeum simple, shallow and close, without forming definite carinae; sides of propodeum with a spiracle on each side but without teeth. Fore wing (Fig. 6) a little over two and a half times as long as wide; marginal vein a little less than four times the submarginal; stigmal shorter than the marginal; postmarginal absent. Fore and mid tibia with a single spur each. Hind coxa (Fig. 5) with reticulate shallow punctures on all sides, so rather mat; no tooth or protuberance on hind coxa. Outer side of hind femur rugose with very minute punctures; densely pubescent, outer ventral margin with a series of minute comblike teeth projecting on outer side of hind tibiae when the tibia is bent; inner basal tooth absent.

Gaster (Fig. 5) inserted far up on the propodeum just below the apex of scutellum; petiole a little shorter than the hind coxa. Seg-

ments of abdomen as in Figure 5. Segments two to five with small punctures and pubescence.

Female unknown.

Biology: Dr. Boucek informs that "the species of this group apparently are nocturnal and from the information available seem to be parasitic in the nests of ants *Oecophylla*". The specimen of *S. keralensis* was collected by me while it was flying around the nest of *Oecophylla smaragdina* Fabr.

Material. Holotype ♂ (Coll. No. C.U. 4110) on pin, INDIA: Kerala: Malappuram district, Thenhippalam 1977 (T. C. Narendran). Type retained for the time being in the Department of Zoology, University of Calicut but will eventually be deposited in a National Institution.

Comments. This is the Western-most representative of the group Smicromorphinae. It differs from all the three species reported from Australia by Girault (loc. cit.) mainly in the absence of median groove on the scutellum, in the difference of proportions of size between the segments of antenna, in the difference of proportion of fore wing veins, in the difference of coloration, and in many other features.

ACKNOWLEDGEMENTS

Thanks are due: to Dr. Z. Boucek of the Commonwealth Institute of Entomology, London, for help in the identification of this species and for various other information on the genus *Smicromorpha*.; to the Head of the Department of Zoology, University of Calicut, for facilities.

NEW DESCRIPTIONS

REFERENCES

- GIRAULT, A. A. (1913): Some Chalcidoid Hymenoptera from North Queensland.—*Arch. Naturg.* 79 (A), H.6: 70-90.
- (1914): A new Chalcidid genus and species of Hymenoptera from Australia.—*Ent. News* 25: 461.
- (1926): Notes and descriptions of Australian Chalcid flies-V.—*Insecutor Inscit. menst.* 41: 70.
- (1930): New Pests from Australia, VIII. 5 pp. Private publication. Brisbane.

STUDIES ON THE SCARAB BEETLES (COLEOPTERA : SCARABAEIDAE) OF NORTH EASTERN INDIA : A NEW SPECIES AND NOTES ON OTHER INDIAN SPECIES OF SUBGENUS *STRANDIUS*, GENUS *ONTHOPHAGUS*¹

S. BISWAS²

(With three text-figures)

The genus *Onthophagus* Latreille, 1802 is one of the largest genera in the animal kingdom and contains about 1620 described species (Balthasar 1963). Division of this multitudinous species into subgenera was of practical necessity but earlier efforts to subdivide these large number of species into subgenera did not meet with much success mainly because no one person has been able to consider *Onthophagus* on a world wide basis. However, while working on Palaearctic and Oriental species, Balthasar divided the genus into a number of subgenera, and during the present study of Scarab beetles of northeastern India it has been observed that inspite of Balthasar's emphasis on extremely variable sexual characters, many of the species may easily be assigned to different subgenera.

Subgenus *Strandius* Balthasar.

Strandius Balthasar, 1935: 307. Type. *Onthophagus (Strandius) lenzi* Harold, 1874.

Medium to large species, uniformly black

or elytra black with red spots or yellow with black bands; upper surface usually shining, bare or covered with minute hairs, head and pronotum with little metallic tinge.

Pronotum with a strongly raised irregularly polygonal basal disc, upper surface never granular; front angles sharp, strongly produced. Front tibiae of male rather elongated, distinctly bent, strongly broad and flat towards apex, penultimate external tooth large, placed rather at right angle, last tooth small and often directed forward. The chief characteristic of the subgenus lies in the shape of the pronotum and in the front tibiae of the male, however, in case of small male and female pronotum is rather simple.

Habits and habitats: As far as Indian species are concerned, members of this subgenus form a biologically well defined natural group. All the members are found in hills above 1000 m altitude and frequent, so far as is known, dung of herbivorous animals only.

Geographical distribution: The subgenus is known from China, Japan, Burma, Vietnam, Cambodia, India and part of Africa. In India there are three species namely *O. (Strandius) gagates* Hope, *O. (Strandius) hingstoni* Arrow and *O. (Strandius) subansiriensis* sp. nov.

¹ Accepted August 1978.

² Eastern Regional Station, Zoological Survey of India, Shillong-793 003. Present address: Coleoptera Section, Z.S.I., 34, Chittaranjan Avenue, Calcutta-700 012.